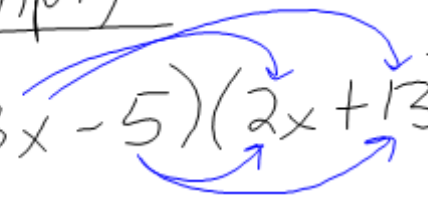


PretestMultiply

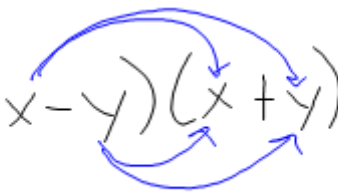
(a)  $(3x - 5)(2x + 13)$



$$6x^2 + 39x - 10x - 65$$

$$\boxed{6x^2 + 29x - 65}$$

(b)  $(x - y)(x + y)$



$$x^2 + \cancel{xy} - \cancel{xy} - y^2$$

$$x^2 - y^2$$

Factor

(c)  $4x^2 - 4x - 15$

(d)  $5x^2 + 23x + 26$

$$12 \cdot 13$$

$$\begin{array}{r} 12 \\ \times 13 \\ \hline 36 \\ 120 \\ \hline 156 \end{array}$$

	10	+2
10	100	20
+3	30	6

$$(x+2)(x+3)$$

	x	+2
x	$x^2$	$2x$
+3	$3x$	6

$$x^2 + 5x + 6$$

$$(x-5)(x+3)$$

	x	-5
x	$x^2$	$-5x$
+3	$3x$	-15

$$x^2 - 2x - 15$$

①  $(x+5)(x+7)$

	$x$	$+5$
$x$	$x^2$	$5x$
$+7$	$7x$	$35$

$$x^2 + 12x + 35$$

②  $(2x-3)(x+2)$

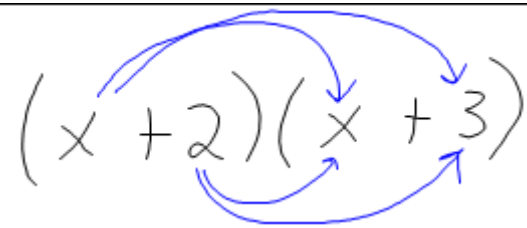
	$2x$	$-3$
$x$	$2x^2$	$-3x$
$+2$	$4x$	$-6$

$$2x^2 + x - 6$$

$(5x-3)(2x+1)$

	$5x$	$-3$
$2x$	$10x^2$	$-6x$
$+1$	$5x$	$-3$

$$10x^2 - x - 3$$

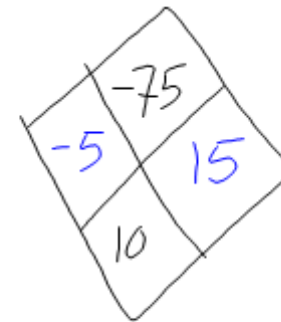
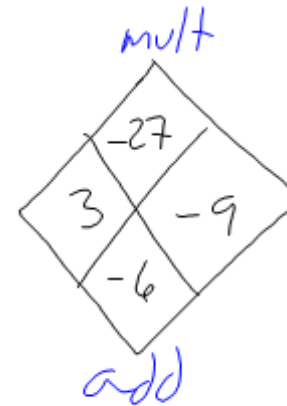
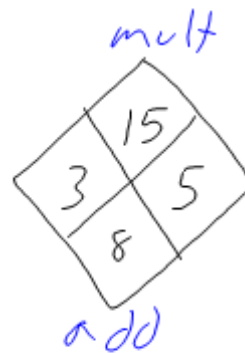
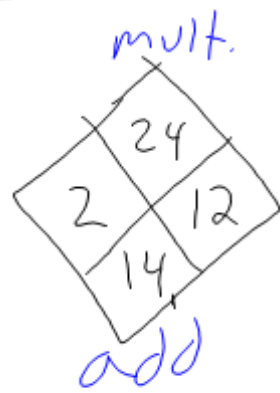
$$(x+2)(x+3)$$


FOIL

$$x^2 + 3x + 2x + 6$$

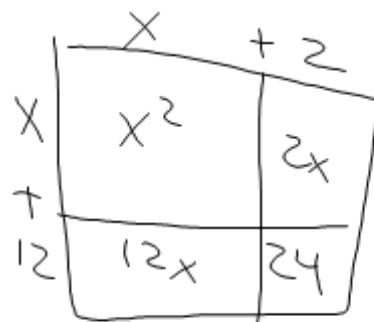
$$x^2 + 5x + 6$$

# Diamond Problems



$$x^2 + 14x + 24$$

add mult.



$$x^2 + 8x + 15$$

add mult

$$(x + 3)(x + 5)$$

$$x^2 + 10x + 24$$

add      mult

1-24  
2-12  
3-8  
4-6

$$(x+4)(x+6)$$

$$x^2 + 12x + 35$$

1-35  
5-7

$$(x+5)(x+7)$$

$$3x^2 - 16x + 5$$

1-3      1-5

	$3x$	$-1$
$x$	$3x^2$	$-1x$
$-5$	$-15x$	$5$

$$2x^2 + 10x + 12$$

1-2      1-12  
2-6  
3-4

$$(2x+6)(1x+2)$$

Sect. 5.4, p. 263

#7-45 (pick 10)